



# 12" BAO/S

Surface Planer and Thicknesser

INSTRUCTION MANUAL No. 3023



# 12" BAO/S

Surface Planer and Thicknesser

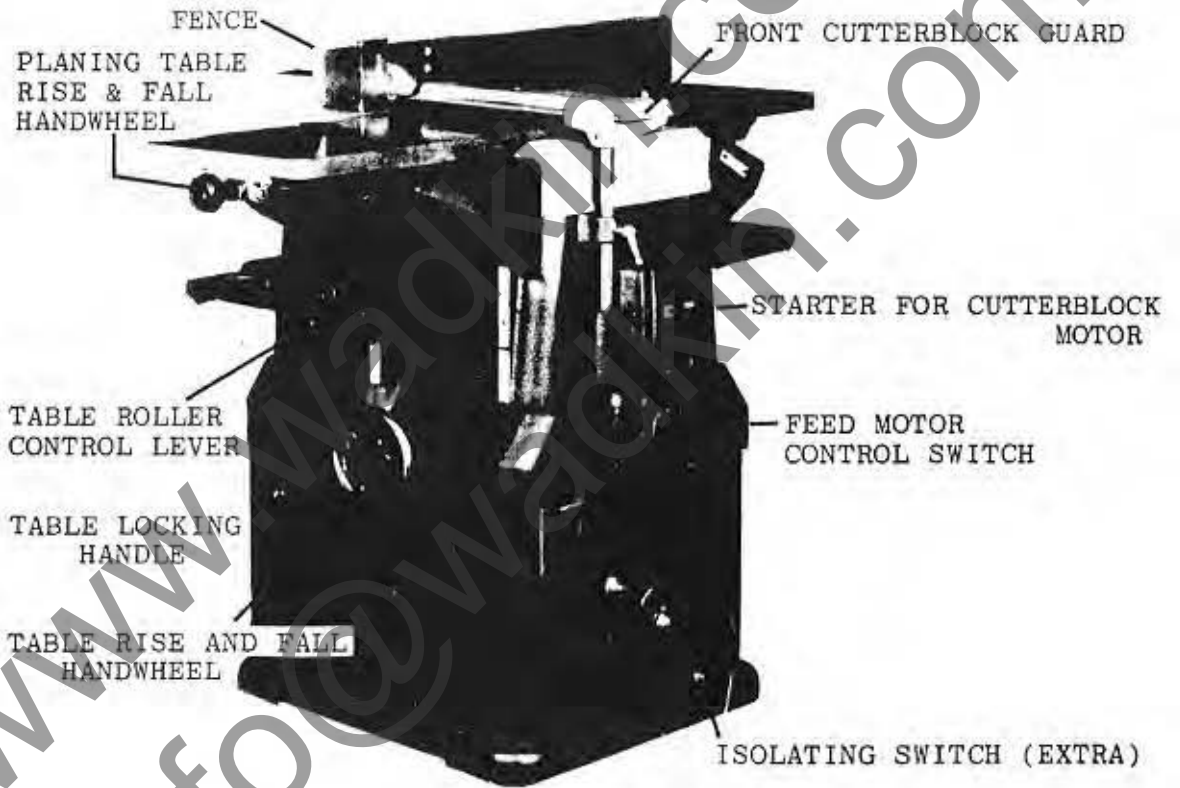
M/C No.
TEST No.

**INSTRUCTION MANUAL**

INSTRUCTION MANUAL FOR

# 12" BAO/S

Surface Planer and Thicknesser



## PREFACE

### IMPORTANT

IT IS OUR POLICY AND THAT OF OUR SUPPLIERS TO CONSTANTLY REVIEW THE DESIGN AND CAPACITY OF OUR PRODUCTS. WITH THIS IN MIND WE WOULD REMIND OUR CUSTOMERS THAT WHILE THE DIMENSIONS AND PERFORMANCE DATA CONTAINED HEREIN ARE CURRENT AT THE TIME OF GOING TO PRESS, IT IS POSSIBLE THAT DUE TO THE INCORPORATION OF THE LATEST DEVELOPMENTS TO ENHANCE PERFORMANCE, DIMENSIONS AND SUPPLIERS MAY VARY FROM THOSE ILLUSTRATED

THIS MANUAL IS WRITTEN AS A GENERAL GUIDE. A TYPICAL MACHINE IS SHOWN TO ILLUSTRATE THE MAIN FEATURES.

**Failure to comply with instructions in this book may invalidate the guarantee**

# HEALTH & SAFETY

## SAFETY OF WOODWORKING MACHINES

Woodworking machines can be dangerous if improperly used. The wide range of work of which they are capable, requires adequate safeguarding arrangements against possible hazards.

Many injuries to machinists are caused by carelessness or failure to use the guards provided or to adjust them correctly.

Wadkin plc supply machinery designed for maximum safety which they believe, as a result of thorough testing, minimizes the risks inevitable in their use. It is the users responsibility to see that the following rules are complied with to ensure safety at work:

1. The operation of the machine should conform to the requirements of the Woodworking Machines Regulations 1974. All guards should be used and adjusted correctly.
2. Safe methods of working only should be adopted as given in the Health and Safety Work Booklet No. 41, "Safety in the use of Woodworking Machines", (obtainable from Her Majesty's Stationery Office) and as advised by Wadkin plc.
3. Only personnel trained in the safe use of a machine should operate it.
4. Before making adjustments or clearing chips, etc., the machine should be stopped and all movement should have ceased.
5. All tools and cutters must be securely fixed and the speed selected must be appropriate for the tooling.

**Safety is our watchword but the user must comply with the above rules in his own interest. We would be pleased to advise on the safe use of our products.**



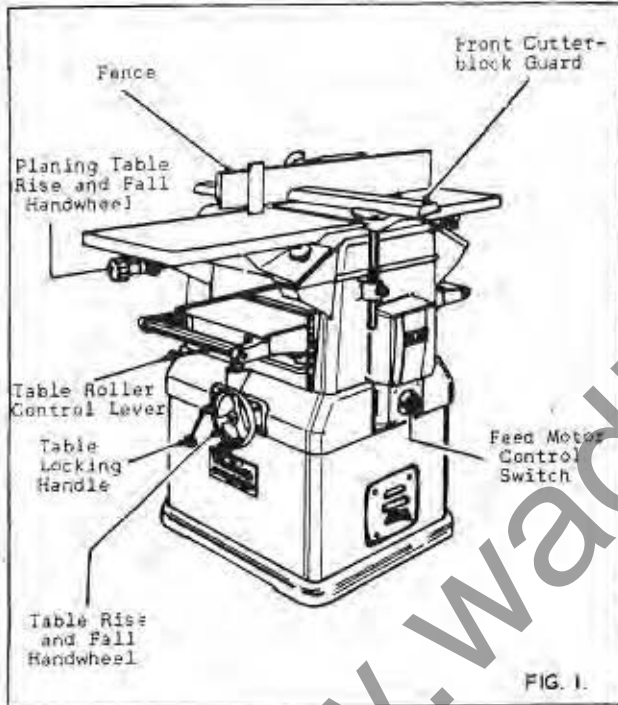
## **SAFETY**

- 1. Read Instruction Book.**
- 2. Securely Lock Cutters.**
- 3. Set Guards Correctly.**
- 4. Select Correct Speed.**
- 5. Use Feeding Devices Where Possible.**
- 6. Refer To HSW Booklet No.41. (in UK) For Safety In The Use Of Woodworking Machinery.**

[www.wadkin.com](http://www.wadkin.com)  
[info@wadkin.com](mailto:info@wadkin.com)

## SPECIFICATION

Thicknessing Capacity ... ..	12 1/2" wide x 7" deep	310 x 180mm
Length of thicknessing table... ..	28"	710mm
Overall length of surfacer tables ... ..	42 1/4"	1,075mm
Width of surfacer tables... ..	12 1/2"	310mm
Rise and fall surfacer tables.. ..	3/8"	15mm
Maximum depth of rebate.. ..	1/2"	12mm
Height of surfacer table from floor.. ..	34 1/2"	880mm
Length of fence ... ..	30"	760mm
Height of fence ... ..	4 1/2"	110mm
Fence cents up to... ..	45°	45°
Cutting circle diameter of cutterblock ... ..	4"	100mm
Speed of cutterblock ... ..	5,000 r.p.m.	5,000 r.p.m.
Number of cutters. Standard.. ..	2	2
Optional extra.. ..	3	3
Horse Power of cutterblock motor ... ..	3	3
Syn. speed of cutterblock motor. 50 cycles. ... ..	3,000 r.p.m.	3,000 r.p.m.
60 cycles. ... ..	3,600 r.p.m.	3,600 r.p.m.
Diameter of feed rollers. ... ..	2"	50mm
Feed speed per minute. 3 phase.. ..	15 and 30 ft.	4.5 and 9m.
1 phase.. ..	22ft.	6.7m.
Maximum fiber space ... ..	42" x 48"	1065 x 1220mm.
Net weight... ..	740 lb.	335 kg.



## WIRING DETAILS

The motor and control gear have been wired in before despatch. All that is required is to connect the power supply to the starter.

## Points to note when connecting to power supply:

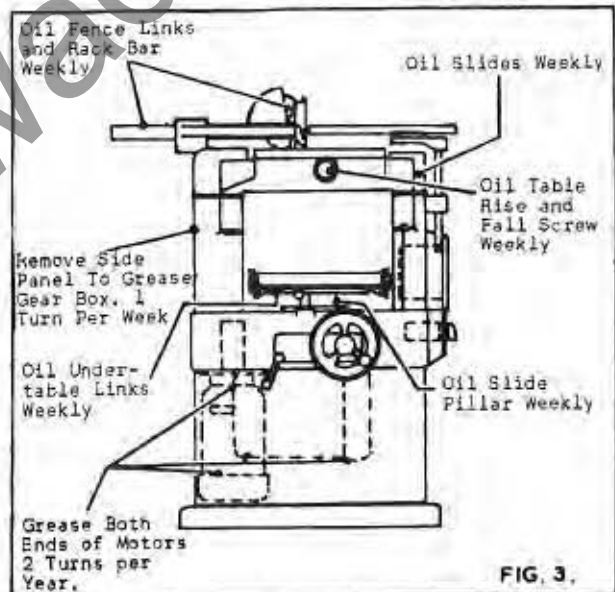
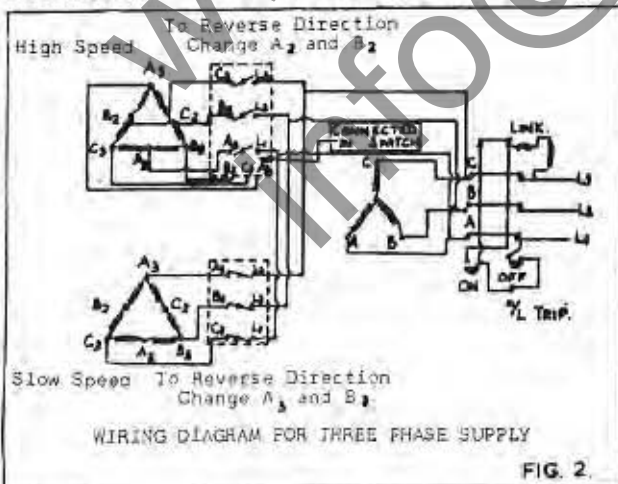
1. Check the voltage, phase and frequency correspond to those on the motor plate also the correct coils and heaters are fitted to the starter.
2. It is important that the correct cable is used to give the correct voltage to the starter as running on low voltage will damage the motor.
3. Check the main line fuses are of the correct capacity.
4. Connect the line leads to the appropriate terminals. See Fig. 2 for 3 phase supply.
5. Check all connections are sound.
6. Check the rotation of both motors for the correct direction. If these are incorrect reverse any two of the line lead connections.

For single phase supply refer to booklet supplied with starter for wiring details.

## INSTALLATION

Remove protective coating from bright parts by applying a cloth soaked in paraffin, turpentine or some other solvent.

When the machine is eased for export the fence, outer table rollers, rise and fall handwheel and front cutterblock guard are removed and packed individually. Remove and assemble as shown in Fig. 1.



## LUBRICATION

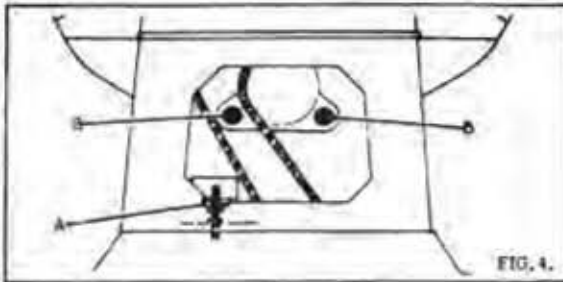
It is advisable to keep all bright parts covered with a thin film of oil to prevent rusting. The slideways should also be kept clear of any chippings for ease of operation.

TYPE OF OIL RECOMMENDED  
TYPE OF GREASE RECOMMENDED

POWER EM.125  
SHELL ALVANIA 3.



All adjustments and alignments listed below have been carefully set and checked and the whole machine thoroughly tested before despatch from the works. During the first few weeks of operation and at regular intervals afterwards certain items such as belt tension and chain tension should be checked carefully. When the adjustments are necessary proceed in accordance with the relative instructions given.



#### BELT TENSION

The Cutterblock drive is by two vee belts from a 3HP motor. Tension is effected to these belts by an adjustable jockey pulley. To adjust, remove sheet steel panel from drive side of the machine and turn the knurled nut "A" in FIG. 4 in the direction indicated until required tension is reached. Replace panel before operating machine.

#### FEED CHAIN TENSION

Drive to feed rollers is by roller chain from a worm gearbox directly coupled to the feed motor. Feed motor on 3 phase machines is 2 speed giving feed speeds of 15 and 30 ft/min (4.5 and 9 m/min) and on single phase, single speed giving a feed speed of 22 ft/min (6.7 m/min) only.

The feed chain must be run with sufficient slack to allow the front or serrated feed roller to freely lift  $\frac{1}{4}$ " from rest position. To adjust, remove drive side panel, loosen the two nuts "B" in FIG. 4 and move idler sprocket as required. Check feed roller lift as above, tighten nuts and replace panel.

#### TABLE ROLLERS

The anti-friction table rollers or bed rollers revolve on sealed for life ball bearings which require no lubrication. On machines prior to serial No. 83710 rollers were individually adjusted by set screws under the bearing blocks and should be adjusted to suit the relevant working conditions. On all machines after this number the rollers are automatically adjusted in relation to the table surface by a single operating lever at the infeed end of the table.

A calibrated scale (0-3) above the lever indicates the relevant positions, a guide to which is as follows:

##### At Min 0

Rollers are level with table surface and only very fine cuts on selected pre-machined timber are generally possible in this position. Feet permitting, however, very accurate step free planing can be carried out in this position.

##### Positions 1 and 2

Are the normal working positions for general use, combining good feeding with first class results.

##### Position 3 maximum

This is for use with wet, twisted or roughly sawn material where feeding is most important feature.

In all cases the lowest position consistent with good and regular feeding should be used as this will give the best possible results. Should the table rollers be removed for any reason care must be taken to replace them exactly as before otherwise the settings will be disturbed.

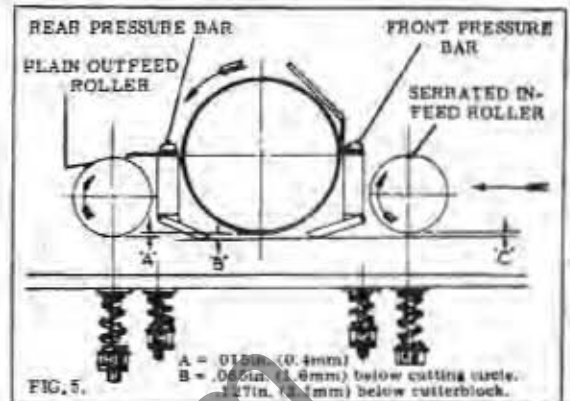
It must be emphasized that a really good surface finish from a thickening machine is only possible when the face of the timber resting on the machine table is flat and has a reasonable finish. Whenever practicable this face should be pre-machined on a overhead jointer or surfacer to remove twist and other irregularities.

#### FEED ROLLER AND PRESSURE BAR SETTING

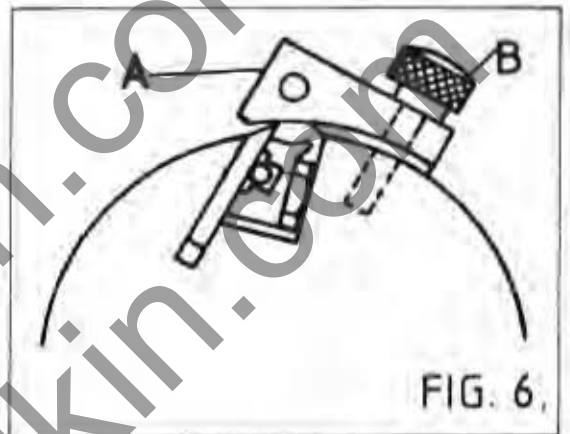
These are pre-set at works in accordance with FIG. 5 and vertical adjustment relative to the cutterblock is neither possible nor necessary provided the cutters are correctly set with the special setting gauge supplied with each machine. Should replacement feed rollers or pressure bars be fitted at any time the settings should be very carefully checked with FIG. 5.

Some slight advantage in finish or feeding may on occasions be obtained by increasing or decreasing the tension of the pressure bar or feed roller springs. Spring pressures should be set by trial and error to give satisfactory feed.

The springs should never be compressed to a point where the feed rollers and pressure bars cannot lift sufficient to allow the maximum cut to be taken.



A = 0.125" (3.175mm)  
B = 0.021" (0.533mm) below cutting edge.  
0.271" (6.878mm) below cutterblock.



#### CUTTER SETTING

The knife is held in the cutterblock by a wedge, into which is fitted spring loaded balls, these balls hold the knife finger tight whilst the 5-M12 hexagon head screws are loose. This allows both hands to be free to adjust the blade and ensure that it will not slip back during setting or move whilst the wedge screws are being tightened up. Should any other method of cutter setting be employed the amount of cutter projection must correspond exactly with that given by the setting gauge supplied and failure to observe this instruction will result in bad feeding and poor finish.

To remove the knives and re-set with the 'BURSGREEN' knife setting gauge, proceed as follows:-

1. Move the fence to rear of the table and lower both planing tables to their lowest position.
2. Turn the cutterblock to approximately the position shown in FIG. 6 and loosen the 5-M12 hexagon head screws, carefully remove knife from cutterblock.

NOTE: When grinding it is important that knives are ground dead straight and balanced in pairs or sets.

An efficient re-grinding service is available, charges are moderate and service prompt. To avail yourself of this service, return knives to BURSGREEN (DURHAM), FENCE HOUSES, TYNE & WEAR.

3. To re-set the knives the cutterblock should be in the approximate position as shown in FIG. 6. Place knife in between wedge and cutterblock with the blade drawn forward slightly.
4. Carefully secure the knife setting device 'A' FIG. 6 to the cutterblock with the two knurled locking screws 'B' as shown in FIG. 6.
5. Whilst turning these locking screws 'B', FIG. 6, knife will be lowered to correct setting which is reached when knurled screws are locked in position and knife just touches knife setting device.
6. When the knife is correctly set tighten 5-M12 hexagon head screws, remove knife setting device then securely lock the 5-M12 hexagon head screws.



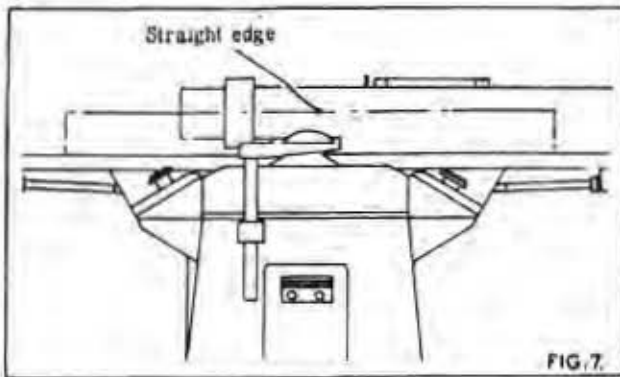


FIG. 7.

7. Rotate cutterblock until the next knife is in position and repeat the procedure until all the knives have been set.
8. When changing knives it is advisable to check that all the locking screws are adequately lubricated and quite free. Periodically examine for damage or cracks. Any doubtful screws should be replaced and all screws well lubricated with 'Moly slip' or similar oil, before replacing.
9. To check the setting of the knives, raise the back planing or 1/16 in. above the outer surface of the cutterblock. Place a straight edge on the table as shown in FIG. 7 and rotate the cutterblock by hand until the knife just touches the straight. Repeat this check in various positions over the width of the table to ensure the knife is parallel. Repeat this procedure for all knives.

Keep the cutters sharp when in position by using a fine grade oil stone dipped in paraffin. Allow the stone to rest lightly and flat on the bevel and pass over the cutter with a rotating action a few times. Give about two strokes on the full length of each knife on the face side to remove all burrs from the cutting edge.

Do not allow a heel greater than 1/32" wide on the bevel before removing and regrinding. When the heel becomes too wide the knives may heat up or have a hammering effect on the wood and more than normal power will be required to run the cutterblock.

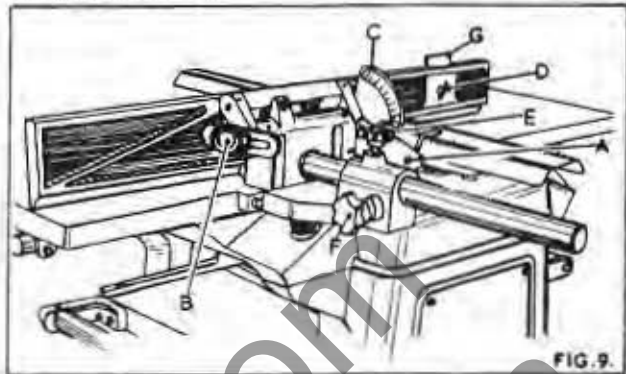


FIG. 9.

#### FENCE ADJUSTMENTS

The fence cants by means of a lever "A" in Fig. 9. The angle is shown on the graduated scale "C".

To cant the fence loosen handwheel "B" and lift handle "A" until the required angle is shown on scale "C", then re-lock handwheel "B".

The fence front plate is fitted with an insert "G" that is adjustable depending on the depth of cut being taken. To adjust loosen wingnut "D" and move the insert until it touches rear table then re-lock wingnut "D". The insert should be loosened at all times before lowering the table.

The fence is adjustable across the table by the handwheel "F". To move across the table loosen handwheel "E" and turn handwheel "F" until required position is reached then relock handwheel "E".

The fence should be locked in both positions at all times when the machine is in operation.

The fence has positive stops at 90° and 45°. These are accurately set before despatch.

To check, the undermentioned procedure should be followed:

1. Move the fence towards the rear of the table as shown in Fig. 10.
2. Check the 90° positive stops by means of a steel square as in Fig. 10. If adjustment is necessary adjust the hexagon head bolts "A" until fence is at right angles to the table when hard up against the stops and the handwheel "B" in Fig. 9 locked.
3. Check the 45° positive stop by means of an adjustable square. If adjustment is necessary adjust the socket head grub screw "B" in Fig. 10 until the fence is 45° to the table when hard up against the stop and the handwheel "B" in Fig. 9 locked.
4. If adjustment is made to the positive stops check the graduated scale for accuracy. This is secured to the support bar by a socket head grub screw and to adjust, loosen the grub screw and accurately position the scale to the pointer.

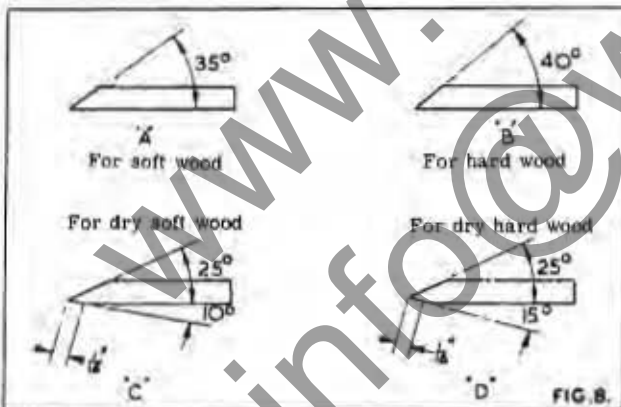


FIG. 8.

#### CUTTER CARE

The cutters supplied are 12 1/4" (310mm) long x 1 1/4" (32mm) wide x 1/8" (3mm) thick in balanced sets. They should be kept in balanced sets by ensuring that the cutters have equal dimensions after grinding and that the cutter edge is straight and parallel to the back edge.

For general work knife angles for soft and hard woods are recommended as in Fig. 8 (a) and (b).

When a very fine finish is required in dry soft and hard woods a slight front bevel is given as in Fig. 8 (c) and (d). For wet or green timber the cutting bevel may be decreased five degrees, but the front bevel should not be given.

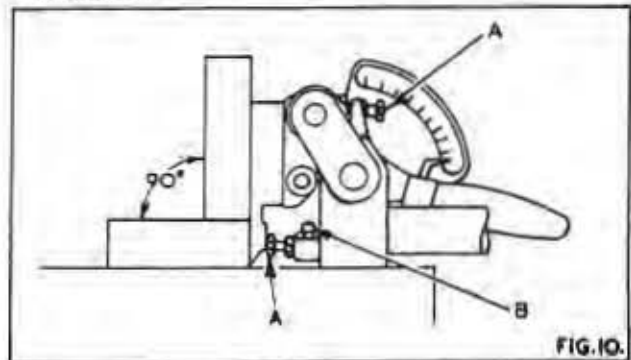


FIG. 10.

### SETTING THICKENING TABLE PARALLEL TO CUTTERBLOCK

The machine table is accurately set parallel to cutterblock before despatch but should it be disturbed for any reason it must be carefully checked and made parallel to the cutterblock, if necessary, by the following procedure.

1. Feed a short length of timber approximately 2" square (50 mm) x 18" long (460 mm) through the machine to one side of the thickening table.
2. Without adjustment to the height of the table feed the timber through the machine again on the opposite side of the table to that in item 1.
3. If a cut is taken or it does not touch the wood adjust the fine thread adjusters on the underside of the table to suit and when set tighten all screws.

As the knife setting device sets the knives parallel to the cutterblock it is vitally important that the table is set dead parallel to the cutterblock.

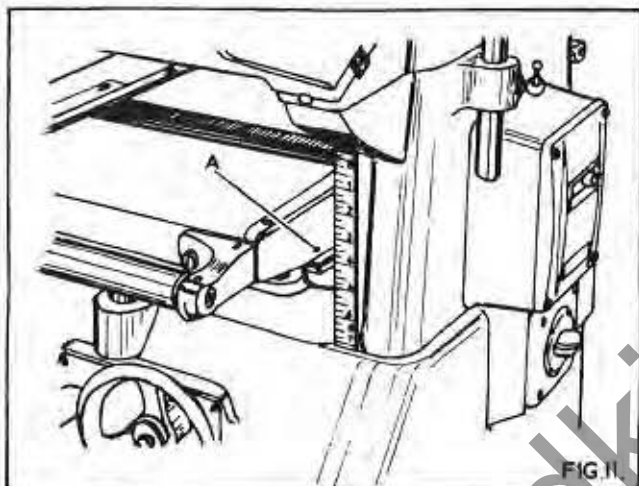


FIG. 11.

### THICKENING RULE

The pointer on the machine table is pre-set before despatch. Should it be disturbed feed a piece of timber through the machine and measure the thickness accurately. Check that the reading given by the pointer corresponds to the thickness of timber machined. Should adjustment be necessary slacken the screw "A" in Fig. 11 and set pointer to the correct thickness.

### GENERAL HINTS

#### For Thickening

1. When thickening long lengths of timber always support after the machine table, otherwise a step will appear on either or both ends.
- See Fig. 15 for suggested support which can be easily made.
2. When a smooth finish is required use the slow feed speed. For roughing when the finish is not important use the fast feed speed.
3. For the best results always feed the timber to cut with the grain.
4. Should the timber stick when thickening two probable causes are given below:
  - (a) The table rollers are set too low in the table.
  - (b) The spring pressure is too great on the pressure bars and too little on the feed rollers.

#### For Surface Planing

1. To obtain the best surface finish always check the direction of the grain, which should run with the cutter as in Fig. 12.
2. To obtain a perfectly flat surface especially with warped stock always put maximum pressure on the back table at "A" in Fig. 13 and as little as possible on the front table at "B".
3. Greater pressure will be required when surfacing bad grained timber otherwise chattering will take place resulting in a coarse finish near each knot.
4. When planing four sides of timber square turn the timber anti-clockwise after each cut so that there will always be a machined face next to the fence as in Fig. 14. The fence locates accurately at 90°

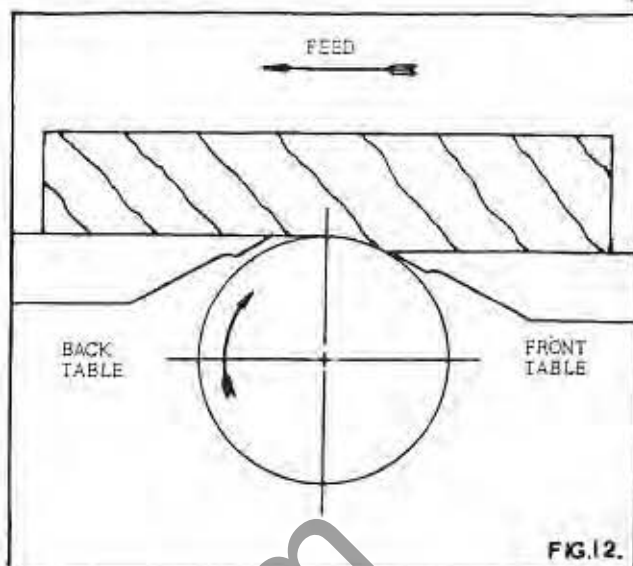


FIG. 12.

CORRECT RUN OF GRAIN

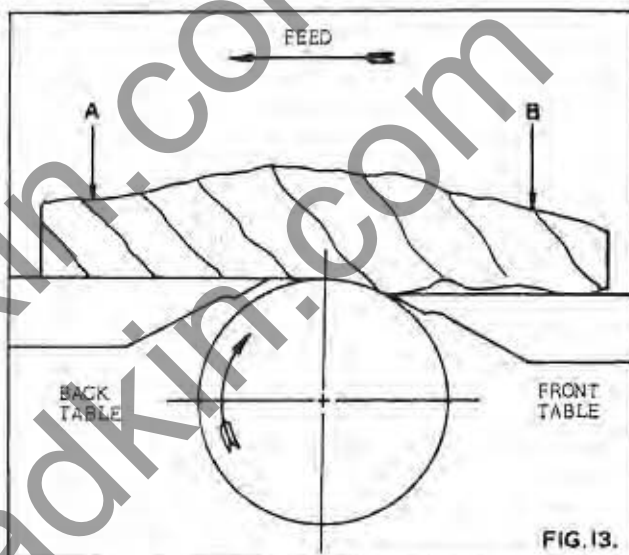


FIG. 13.

FEEDING WARPED TIMBER

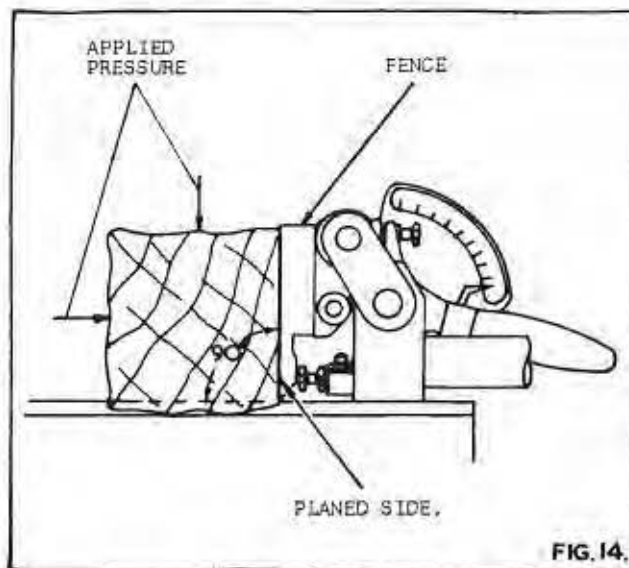
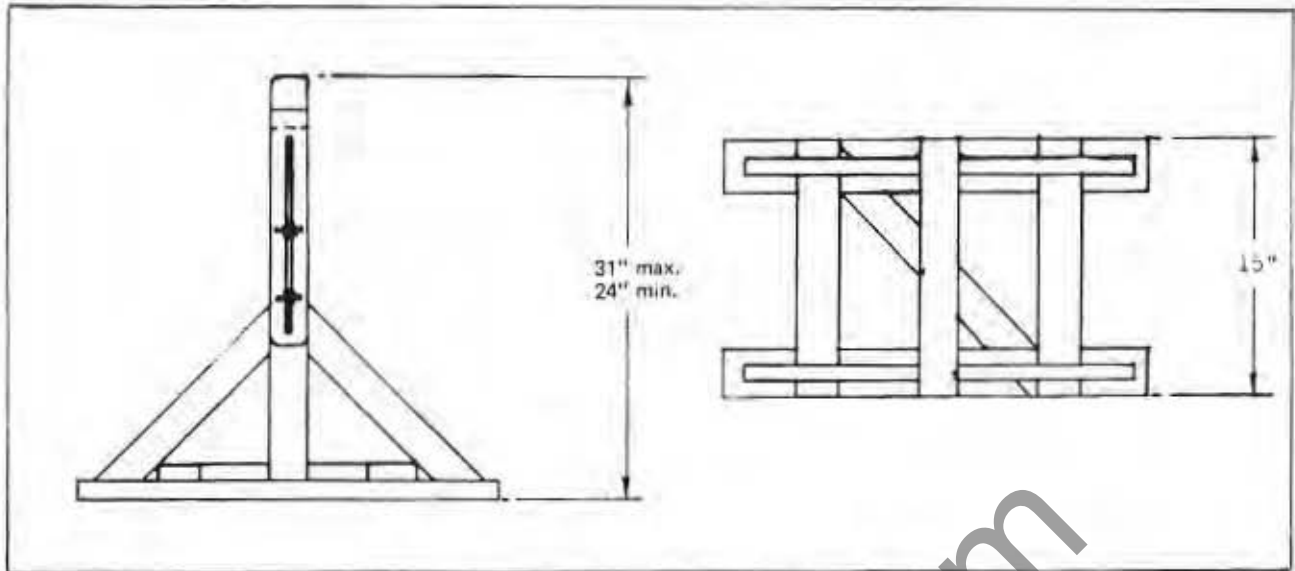
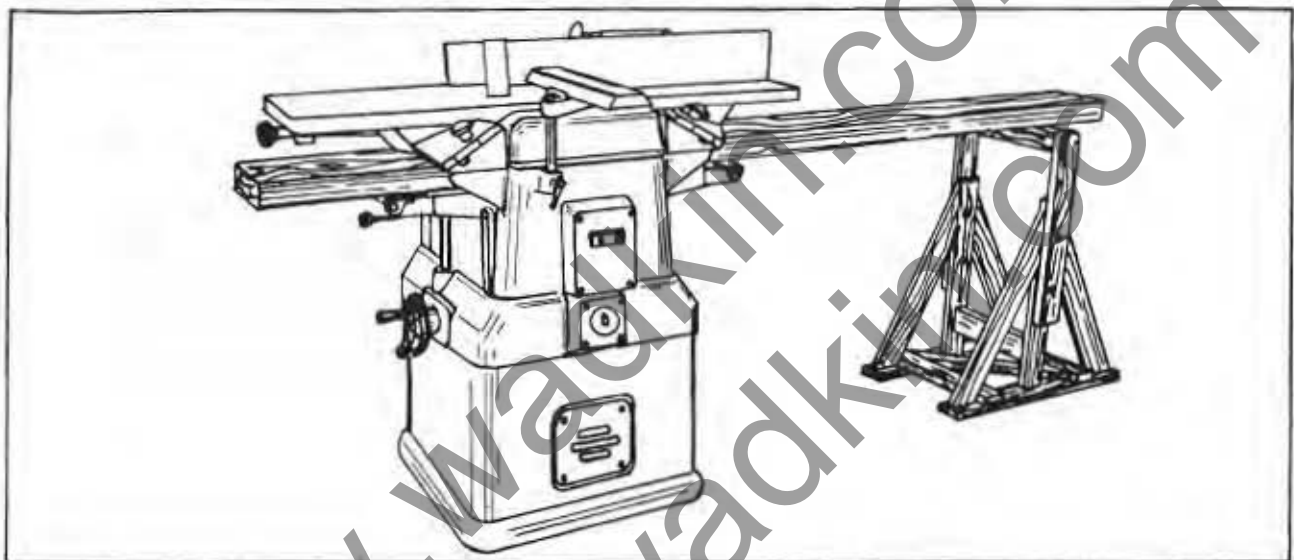


FIG. 14.

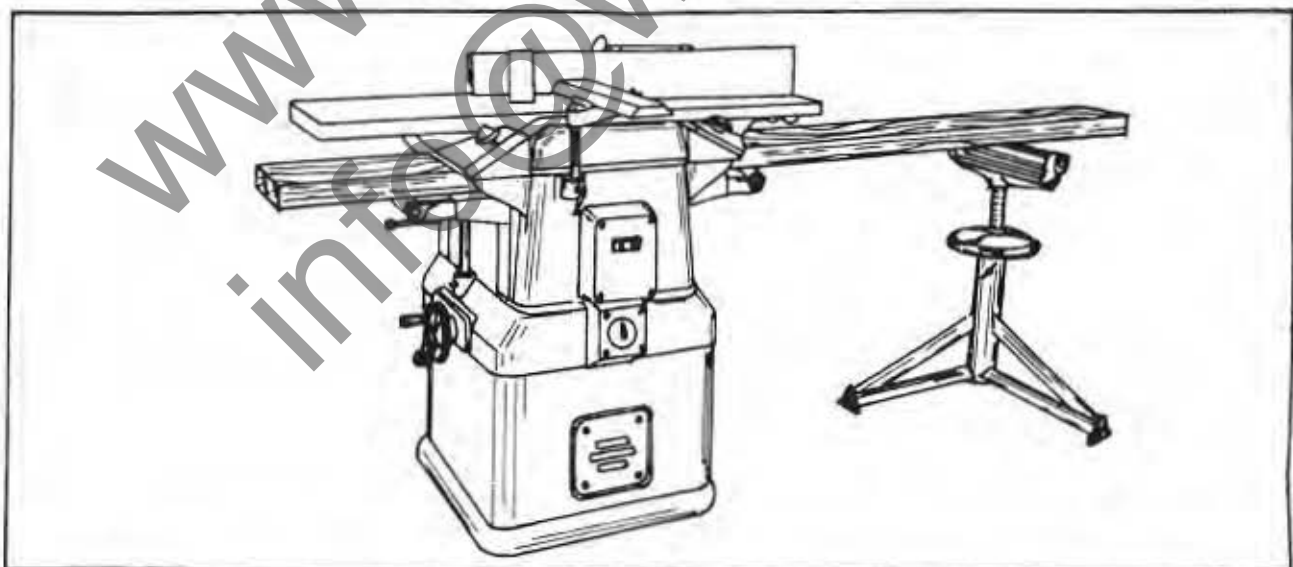
WORKING WITH FENCE



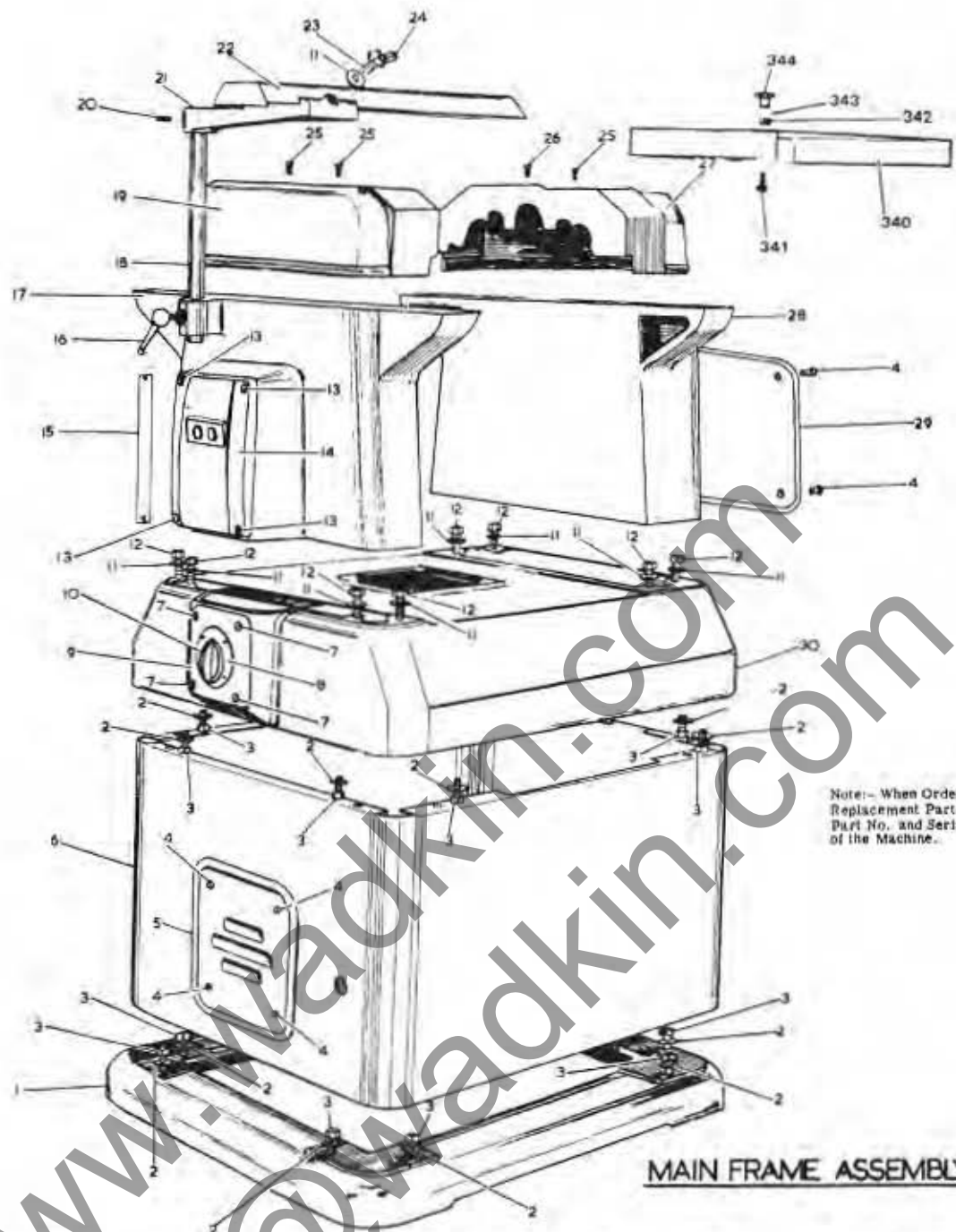
OVERALL DIMENSIONS OF SUGGESTED SUPPORT



SKETCH SHOWING WOOD SUPPORT IN POSITION



SKETCH SHOWING WADKIN/BURSGREEN ROLLER STAND TYPE VW IN POSITION.



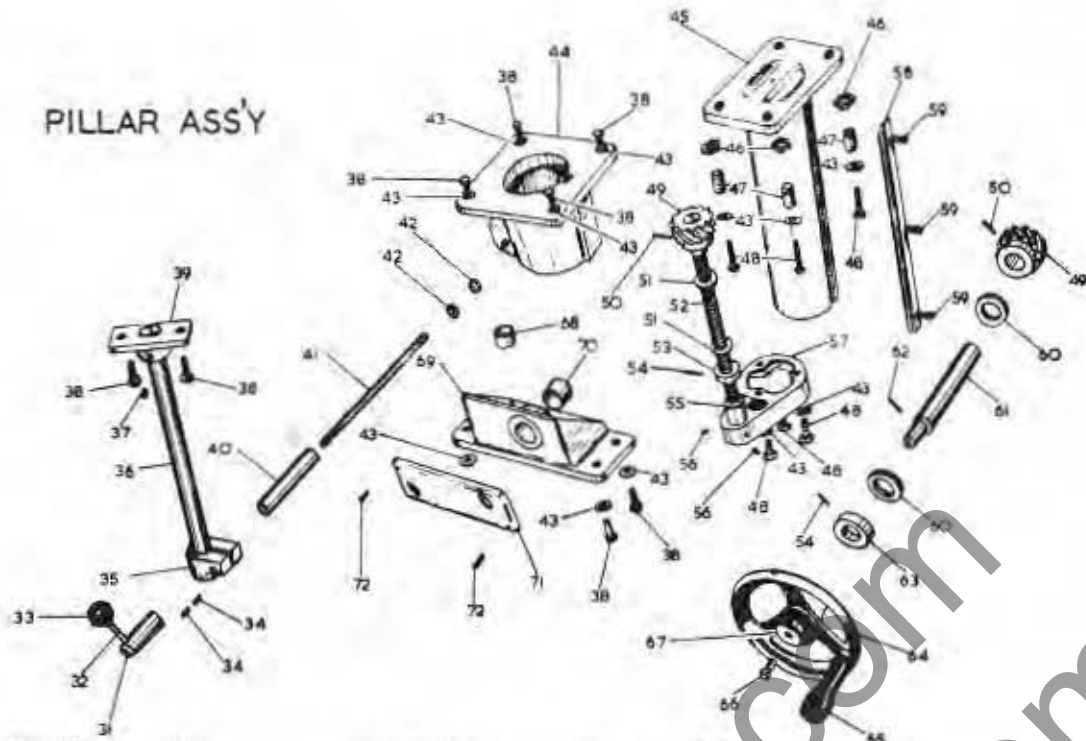
Note:- When Ordering Replacement Parts Quote Part No. and Serial No. of the Machine.

**MAIN FRAME ASSEMBLY**

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
1	D1031M/5	1	Foot for base	15	B-1031/25	1	Thickening table rule (English)
2		16	10 washer		B-1031/65	1	Thickening table rule (Metric)
3		16	M10 x 30 long hexagon head bolt	16	B-S-1-B	1	3/8" whit. ball lever screw
4		22	M5 x 10 long round head screw	17	D-1032M/18	1	Rebate side frame
5	B-1031/53	1	Panel for base	18	A-1029/20	1	Front cutterblock guard adjustment bar
6	E-1031M/7	1	Base (Standard)	19	D-1032/7	1	Rebate side guard
7	C-1031M/67	1	Base (Single phase)	20		1	M8 x 12 long socket head grub screw
8		4	M8 x 20 long countersunk head screw	21	C-1032M/6	1	Front cutterblock guard bracket
9	A-1031/67	1	Escutcheon plate for rotary switch (Standard)	22	A-1032/17	1	Front cutterblock guard
10	B-1031M/16	1	Escutcheon plate for rotary switch (Single phase)	23	A-1028M/51	1	Cutterblock guard locking pin
	SR.1310.BG.74	1	Faceplate for rotary switch	24		1	M10 wing nut
	SR.123	1	Sanfon 2 speed rotary switch(3 phase, 50 cycle)	25		3	M8 x 20 long countersunk head screw
	SR.1316.AR.65	1	Sanfon 2 speed rotary switch (1 phase, 50 cycle)	26	D-1032/20	1	M8 x 25 long countersunk head screw
		9		27	D-1032M/19	1	Drive side guard
11		8		28	B-1031/51	1	Drive side frame
12		4		29	E-1031M/1	1	Drive side frame panel
13		1		30		1	Main frame
14	H4ADS/PQ	1	MEM starter	31	D-1032/43	1	Tunnel guard
			NOTE: 1 phase and 60 cycle supplies have separate push button controls for full details refer to manufacturer.	340		1	M8 x 40 long hexagon head bolt
				341		1	M8 nut
				342		1	8 washer
				343		1	1 1/2" dia. plastic handwheel M8
				344		1	



### PILLAR ASSY



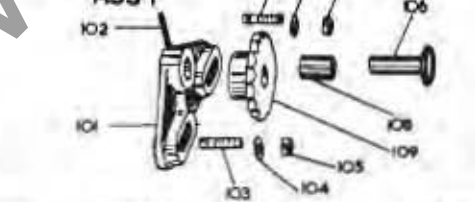
REF NO	PART NO.	NO. OFF	DESCRIPTION	REF NO	PART NO.	NO. OFF	DESCRIPTION
31	A-1031M/84	1	Unsettable support locking handle	53	A-1031M/49	1	Collar for thickening table rise and fall screw
32	A-1031M/141	1	Table rise and fall locking handle	54	A-1031/58	2	5/8 dia x 40 long groverlok spring dowel
33	Patn. No. 39	1	1 1/2" dia. plastic ball, M10	55	A-1031/58	1	Nut for thickening table rise and fall
34		2	M6 x 12 long socket head grub screw	56	B-1031M/15	2	M6 x 12 long socket head grub screw
35	A-1031/M/83	1	Undertable support bar clamp	57	A-1031/44	1	Pillar end cap
36	A-1031/87	1	Undertable support bar	58	A-1031/44	1	Thickening table pillar key
37		1	M10 x 10 long socket head grub screw	59	EW1	2	M6 x 20 long socket head cap screw
38		10	M10 x 25 long hexagon head bolt	60	A-1031M/41	1	Hoffman thrust race
39	A-1031/M/89	1	Undertable support bar bracket	61	A-1031M/41	1	Thickening table rise and fall shaft
40	A-1031/86	1	Undertable support locking bush	62	B-1026/8	1	5 dia x 20 long groverlok spring dowel
41	A-1031M/85	1	Undertable support locking stud	63	Patn. No. 4	1	Collar for rise and fall shaft
42		2	M12 locknut	64	A-1031M/114	1	Rise and fall handwheel
43		15	10 washer	65	Patn. No. 4	1	2" plastic handle
44	D-1031M/10	1	Pillar slide bracket	66	A-1031/70	1	M6 x 20 long hexagon head bolt
45	D-1031M/8	1	Pillar	67	A-1031/70	1	Washer for handwheel
46	A-1031/51	4	1" simplex locknut	68		2	3/4" bore x 1"D/D x 1" long elite bush
47	A-1031/35	4	Thickening table adjusting screw	69	C-1031/11	1	Bracket for rise and fall mechanism
48	CK. 187	2	M10 x 45 long hexagon head bolt	70		1	1" bore x 1 1/2" D/D x 1" long elite bush
49		2	Spiral gear for rise and fall	71	B-1031/17	1	Faceplate for rise and fall handle
50		2	5/8 dia x 50 long groverlok spring dowel	72		2	M6 x 20 long round head screw
51	EW1	2	Hoffman thrust race				
52	B-1031/42	1	Thickening table rise and fall screw				

### JOCKEY PULLEY ASSY



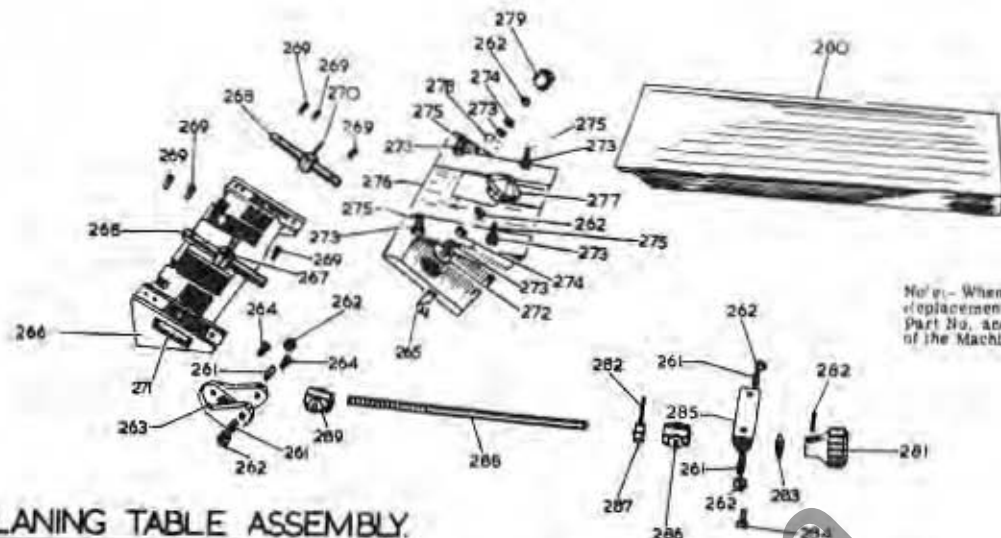
REF NO	PART NO.	NO. OFF	DESCRIPTION
81	A-1002/87	1	Jockey pulley adjusting nut
82	A-1031/48	1	Belt tension screw
83		1	10 washer
84	A-1024/21	1	Spring for belt tensioner
85	A-1031/40	1	Belt tensioner pivot nut
86	C-1031M/9	1	Lever for belt tensioner
87		1	1/8" gas x 1" long socket head grub screw
88		2	M6 x 12 long socket head grub screw
89	A-1031M/60	2	Jockey pulley pivot shaft collar
90	A-1031/47	1	Pivot pin for belt tension lever
91	A-1031/20	1	Belt tension pulley
92		1	M32 anozight nut
93	A-1031/48	1	Bearing bush for belt tension pulley
94	8203F	2	Fischer single seal bearings
95	A-1031/78	1	Jockey pulley distance piece
96	9098-158	2	"Truearc" 40mm internal circlip
97		1	M12 x 85 long stud

### JOCKEY SPROCKET ASSY



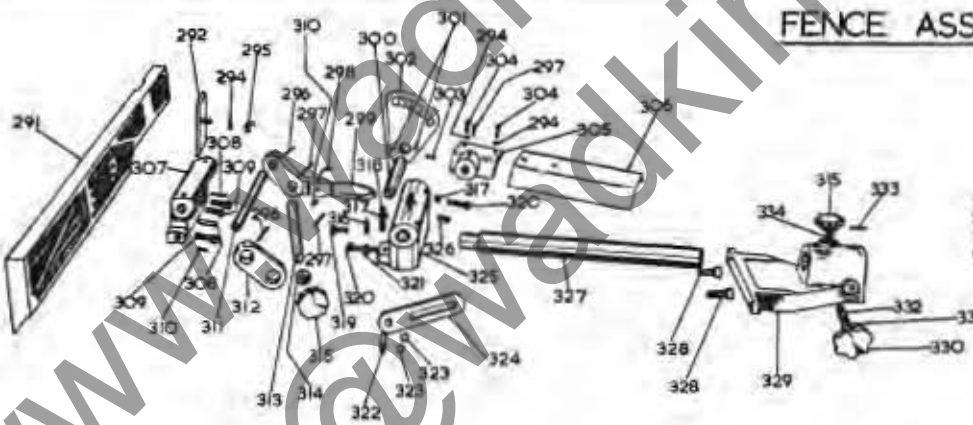
REF NO	PART NO.	NO. OFF	DESCRIPTION
101	C-1031/6	1	Bracket for jockey sprocket
102		1	5/8 dia x 40 long groverlok spring dowel
103		2	M10 x 40 long stud
104		2	10 washer
105		2	M10 nut
106	A-1031/131	1	Jockey sprocket bearing pin
108		1	5/8" bore x 7/8"D/D 1.1/8" long oilite bush
109	A-1031/59	1	Jockey sprocket (10 teeth)

NOTE:- WHEN ORDERING REPLACEMENT PARTS QUOTE PART NO. AND SERIAL NO. OF THE MACHINE.



**PLANING TABLE ASSEMBLY.**

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
261		8	M10 x 30 long cone point socket head grubcrew	275		1	M10 x 25 long hexagon head bolt
262		13	M10 locknut	276	D-1032/24	2	Planing table intermediate slide bracket
263	A-1032/34	2	Planing table rise and fall nut pivot bracket	277	A-1032M/10	2	Rebate side locking handwheel
264		4	M8 x 20 long countersunk socket head screw	278	A-1032/32	2	Drive side table locking washer
265	A-1032/37	2	Table rise and fall rule indicator	279	A-1032M/11	2	Drive side table lock cover
266	D-1032M/2	2	Planing table slide bracket	280	C-1032M/23	2	Planing table
267	A-1032M/9	2	Rebate side planing table lock screw	281	Pat. No. 24	2	2" dia. plastic handwheel 12 bore
268	A-1032M/8	4	Planing table slide rod	282		4	3 dia. x 25 long groverlok spring dowel
269		12	M6 x 16 long socket head capcrew	283		2	12 washer
270	A-1032M/9	2	Drive side planing table lock screw	284	B-1032M/28	2	M8 x 20 long hexagon head bolt
271	A-1032/36 1 ea. hand		Table rise and fall rule	285	A-1032/25	2	Planing table handwheel pivot bracket
272	A-1032/32	2	Rebate side table locking washer	286		2	Planing table rise and fall screw pivot nut 1" rxm
273		12	10 spring washer	287	A-1032/39	2	Collar for planing table rise and fall screw
274		4	M10 nut	288	A-1032M/28	2	Planing table rise and fall screw
				289	A-1032/25	2	Planing table rise and fall nut, 1/2" whit.



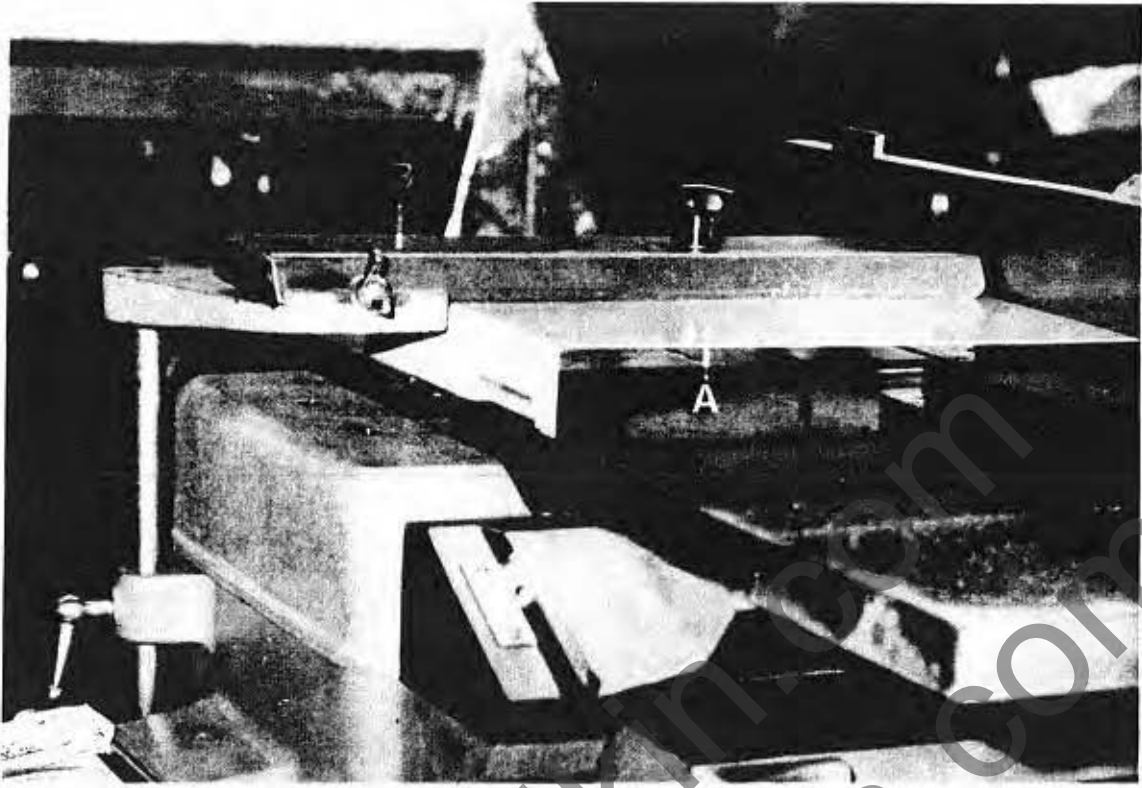
**FENCE ASSEMBLY.**

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
291			Fence front plate	313	1032M/47	1	Fence bottom pivot bar
292	A-1029M/40	1	Adjustable fence plate	314		1	10 washer
293		3	6 washer	315	Pat. No. 32	1	1 1/2" dia. plastic handwheel, M10
294		1	M6 wing nut	316	A-1032/64	1	Fence locking washer
295		2	5 dia. x 30 long groverlok spring dowel	317		2	M6 locknut
296		3	5 dia. x 40 long groverlok spring dowel	318		1	M8 x 20 long socket head grubcrew
297		1	Fence pointer	319		1	M10 x 25 long hexagon head bolt
298	A-1029/78	1	Fence link with handle	320		2	M6 x 25 long hexagon head bolt
299	B-1032M/56	1	Back cutterblock guard support bar	321		1	M6 nut
300	A-1032M/57	2	M5 x 12 long round head screw	322	A-1002/67	1	Fence locking link pivot pin
301		1	Angle indicator plate and base	323	5100-37	2	3/8" dia. external circlip
302	B-1032/53	1	M6 x 12 long socket head grubcrew	324	A-1032/50	1	Fence locking link
303		1	M6 x 12 long round head screw	325	D-1032M/61	1	Fence casting bracket
304		1	Back cutterblock guard bracket	326		1	1/8" gas x 1/2" long socket head grubcrew
305	B-1032M/54	1	Back cutterblock guard	327	A-1032M/15	1	Fence rack bar
306	A-1032/16	1	Fence front plate bracket	328		2	M8 x 25 long socket head capcrew
307	C-1032M/60	2	6 dia. x 20 long fluted dowel	329	D-1032/5	1	Fence adjusting bracket
308		3	M8 x 20 long hexagon head bolt	330	Pat. No. 14	1	2" dia. plastic handwheel, 5/16" plain bore
309		2	M6 x 10 long socket head grubcrew	331		1	5/16" bore x 1/2" O/D x 1/2" long bilite bush
310		1	Fence top pivot bar	332	A-1032/46	1	Fence pinion
311	A-1032M/48	1	Plain fence link	333		1	3 dia. x 20 long groverlok spring dowel
312	B-1032/55	1		334		1	M10 x 40 long brass stud

APPROVED LUBRICANTS						
Application	Castrol	B.P.	Shell	Esso	Texaco/Caltex	Wadkin
Worm Boxes	ZN220	Energol CS320	Vitrea 320	Spartan EP220	Regal Oil 320	L2
General Lubrication	Magna 68	Energol HP68	Vitrea 68	Nuray	Ursa Oil P68	L4
Pneumatic Lubricators	Hyspin AWS32	Energol HL32	Tellus 37	Nuto H32	Rando Oil HD32	
Grease	Spheerol AP3	Energol L53	Alvania R3	Beacon 3	Regal Starfak Premium 3	L6
Brake Cables	Brake Cable grease	Energol L21M	Alvania R3	Esso Multi-purpose grease		

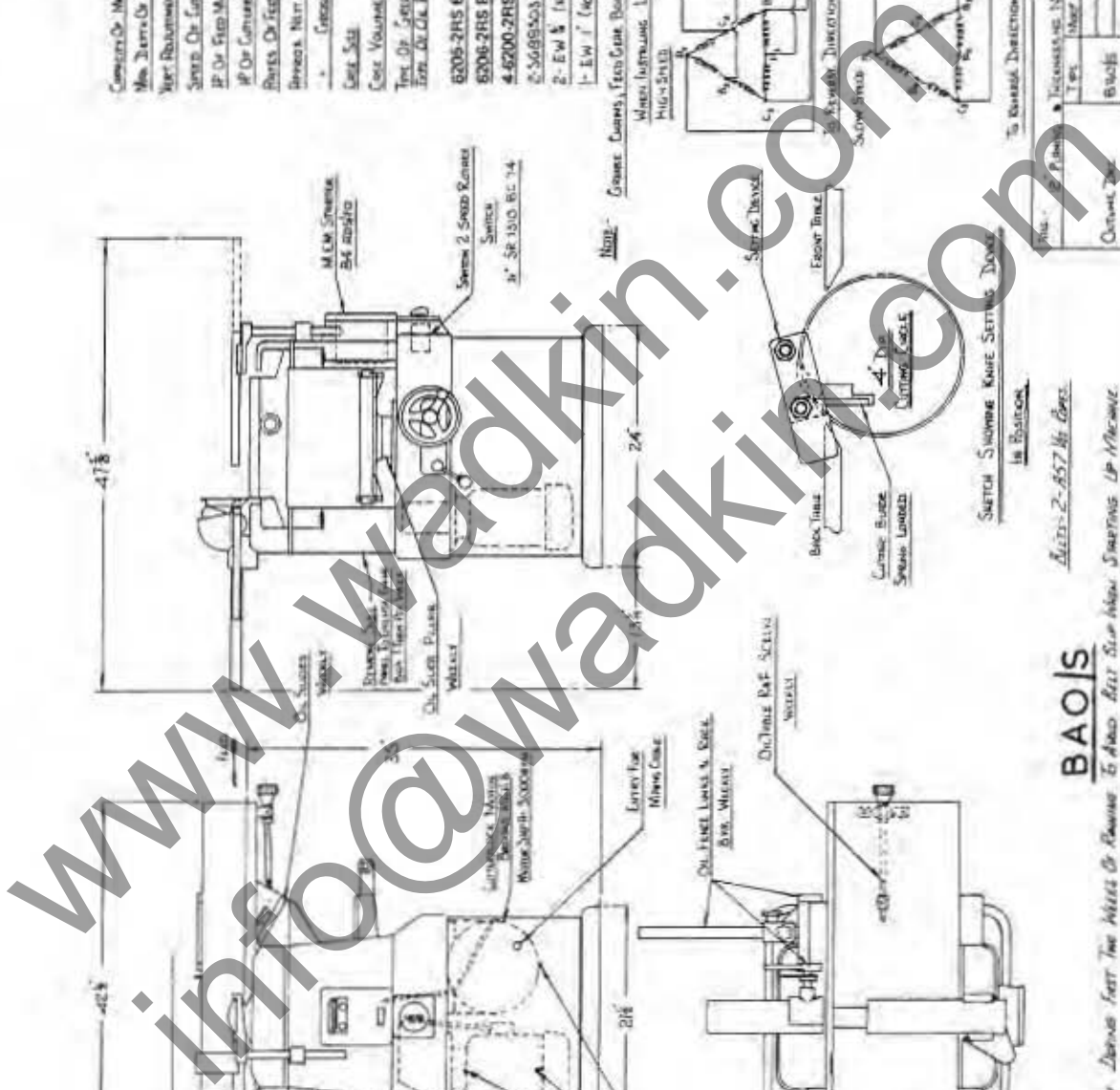


## TUNNEL GUARD



When thickening ensure tunnel guard 'A' is fitted to bridge guard 'B' with hexagon bolt, nut, washer and handwheel provided (page 7).

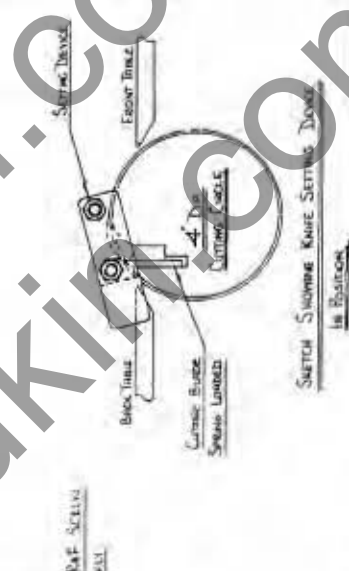
www.wadkin.com  
info@wadkin.com



- Specifications:**
- Concrete Or Metal
  - Max. Torque Or Drawn
  - Yield Requirement Or Pressure Treated
  - Speed Or Lubrication
  - IP Or Field Motion
  - IP Or Lubrication Method
  - Bore Or Feed
  - Breaks Not Allowed
  - Cross Hole
  - Case Size
  - Case Volume
  - Time Or Torque Requirements
  - From Or On Requirements
  - 6205-2RS Bearing
  - 6206-2RS Bearing
  - 4-6200-2RS Bearing
  - 2-5689503 (S.K.T) Bearings
  - 2- EW 1/2 (New) Tapered Roller
  - 1- EW 1 (New) Tapered Roller

- Materials:**
- Use On Centrifuge
  - Use On Unknotting Machine
  - Use On Jooby Pumps
  - Use On R.V. Buckets

**NOTE:** Gauge Cases, Feed Gate Box & Ref. Diagrams. Where Indicated. Use Limits Or Features. Limit For Or Base.



**FIG. 2-517-1**

Part No.	Quantity	Part Name	Material
1	1	Motor	Steel
2	2	Bearings	Steel
3	2	Bearings	Steel
4	1	Control Cable	Steel
5	1	Switching Knife	Steel

**CONTRACT NO.**

**BAO/S**

Check & Install Bell Tension Discs. Remove Feet The Motor Or Bearing To Avoid Bell Stop Motion. Switching IP Machine.

ALLEN-Z-557-11-100

Failure to comply with instructions in this book may invalidate the guarantee

FUSE LIST

Voltage	Phase	KW	SWG Tinned Copper Wire	Amps	Direct on Line
220	3	2.37	16	62	
380	3	2.37	18	39	
415	3	2.37	19	35	
240	1	2.37	15	84	

USA/CANADA

Voltage	Phase	HP	Cartridge Fuse Amps
220/230	3	3	67
440	3	3	33
575	3	3	20

**BE CAREFUL**

**THIS MACHINE CAN BE DANGEROUS  
IF IMPROPERLY USED**

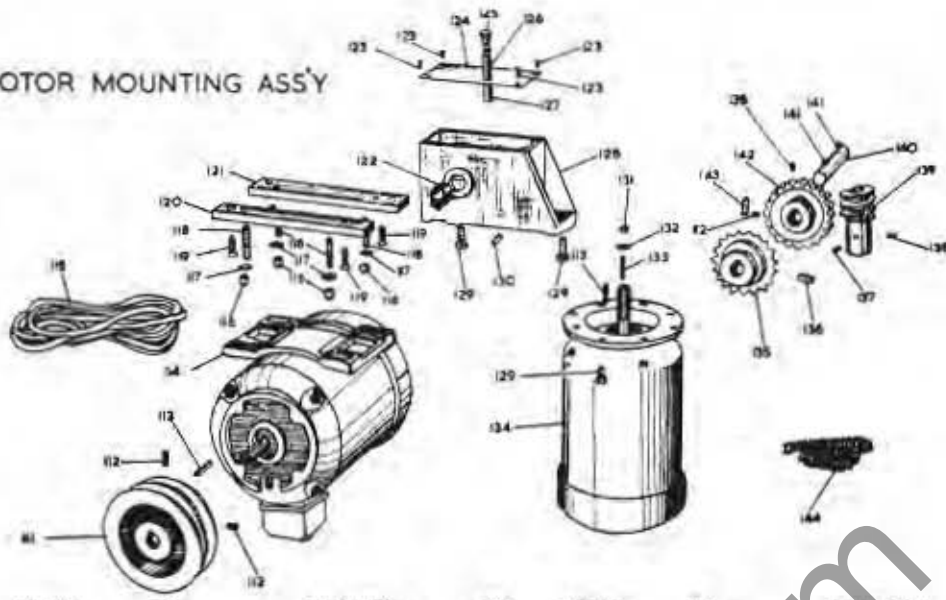
**Always Use Guards**

**Keep Clear Until Rotation Has Ceased**

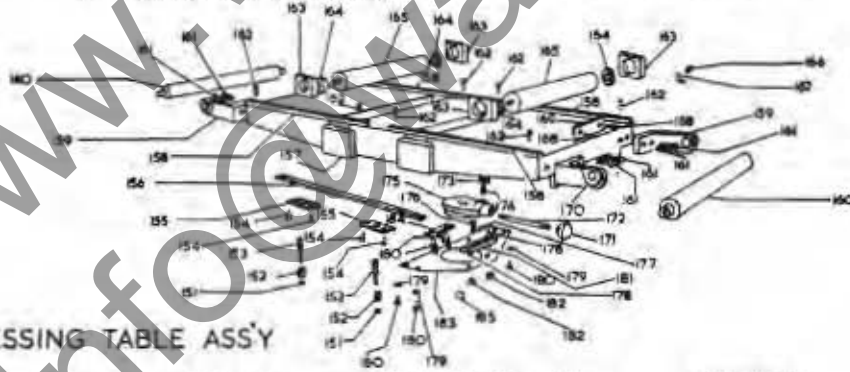
**Always Operate As Instructed And  
In Accordance With Good Practice**

**Read Instruction Manual**

### MOTOR MOUNTING ASS'Y

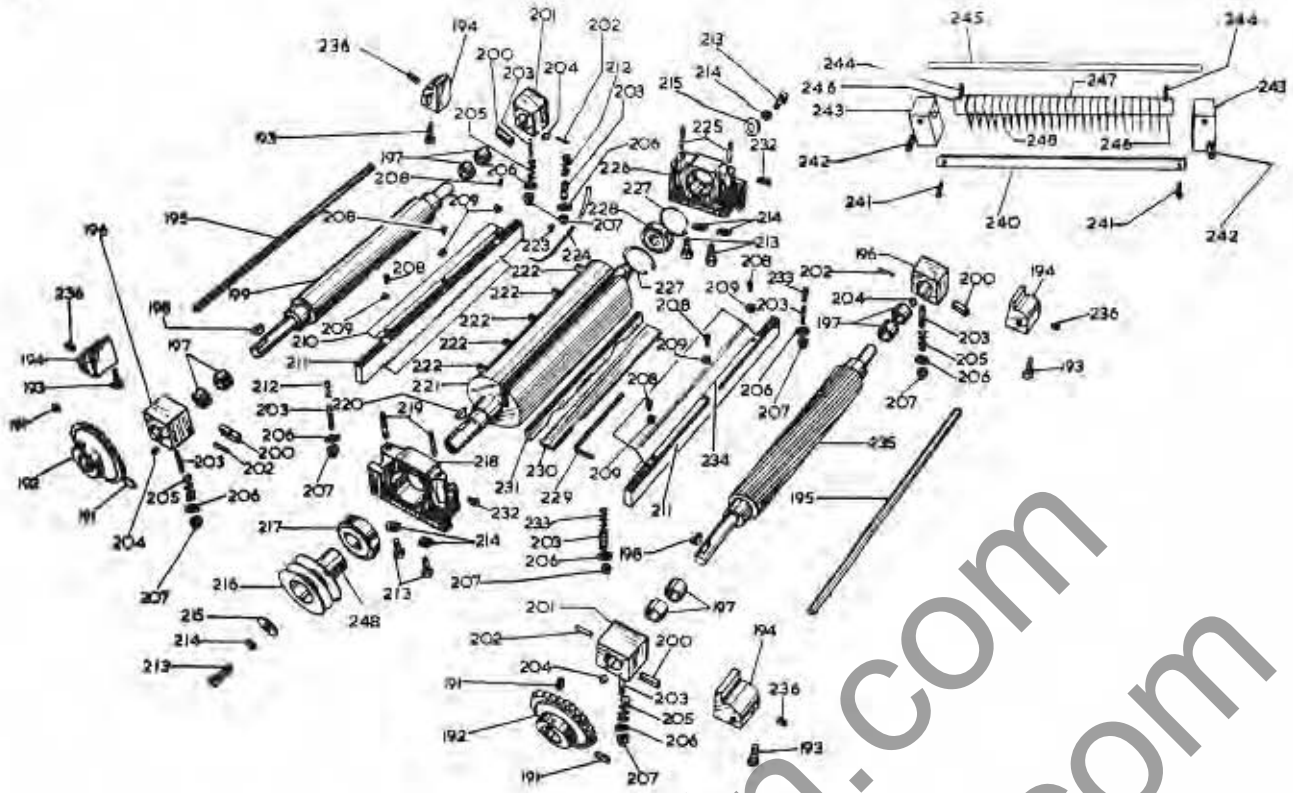


REF NO	PART NO.	NO. OFF	DESCRIPTION	REF NO.	PART NO.	NO. OFF	DESCRIPTION
111	B-1031M/89	1	Motor pulley (50 cycle)	131		1	M5 x 12 long blind head screw
112	B-1031M/91	1	Motor pulley (60 cycle)	132	A1031/M	1	Feed gear housing
113		2	M6 x 12 long socket head grub screw	133	Ni, 0	1	1/8" washers grease stuffed
114		2	8mm wide x 40 long washer key	134	A-1031/42	1	Groove ball for gearbox
		1	Brook 30L 3HP 3000rpm TEFC	135	A-1031/43	1	Ball bearing tube
		1	Foot mounted Terminal box at 12 o'clock	136	C-1031M/32	1	Feed gearbox
		1	3 phase, 50 cycle	137		4	M10 x 20 long hexagon head bolt
		1	Brook, 60L 3HP, 3600 rpm TEFC Foot	138		1	1/8" dia x 3/4" long nickel head grub screw
		1	mounted terminal box at 12 o'clock 3	139		1	M6 acorn nut
		1	phase 60 cycle	140	A-1031/21	1	Retaining washer for worm
		1	Brook, D100L 6 HPF 3600 rpm TEFC	141		1	M10 x 30 long stud
		1	Foot mounted terminal box at 3 o'clock	142		2	Brook T14, 2 speed 1/2" motor, 3600 rpm
		1	3 phase 50 cycle	143		1	and 1800 rpm 1/2" motor, 1.25 50 cycle
		1	Brook, D100L 6 HP, 3600rpm TEFC	144		1	Brook T14, 4 speed TEFC motor, 900 rpm
		1	Foot mounted terminal box at 9 o'clock			1	and 1800 rpm flange mounted 3.00 60 cycle
115	A-57	2	Goodyear belt (red type)			1	B5 w x 1.12 TEFC supply, 1000 rpm Flange
116		4	M10 acorn nut			1	mounted 1000 rpm 50 cycle
117		4	10mm washer			1	Flange mounted TEFC motor, 1800 rpm
118		4	M10 x 40 long stud			1	Flange mounted TEFC motor, 3600 rpm
119		4	M10 x 40 outside/inside socket head screw (50 cycle)			1	Flange mounted TEFC motor, 3600 rpm
		4	M10 x 55 counter sunk socket head screw (60 cycle)	145	A-1031M/60	1	Flange mounted TEFC motor, 3600 rpm
120	B-1031M/138	1	Motor plate (1" thick) 3 phase 50 cycle	146	A-1031M/92	1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/138	1	Motor plate (1.3/8" thick) 3 phase 60 cycle			1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/139	1	Packing piece for 1 phase, 60 cycle (3/8" thick)			1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/140	1	Packing piece for 1 phase, 60 cycle (1" thick)			1	Flange mounted TEFC motor, 3600 rpm
121	B-1031M/137	1	Motor plate (1" thick) 3 phase 50 cycle			1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/137	1	Motor plate (1.3/8" thick) 3 phase 60 cycle			1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/103	1	Packing piece for 1 phase, 50 cycle (5/8" thick)			1	Flange mounted TEFC motor, 3600 rpm
	B-1031M/132	1	Packing piece for 1 phase, 60 cycle (1 1/2" thick)			1	Flange mounted TEFC motor, 3600 rpm
122		2	1 1/2" dia x 1.000 x 7/8" long nylon bush			1	Flange mounted TEFC motor, 3600 rpm



### THICKENING TABLE ASS'Y

REF NO	PART NO.	NO. OFF	DESCRIPTION	REF NO.	PART NO.	NO. OFF	DESCRIPTION
151		4	M8 locknut	169	A-1031/117	1	Understable roller adjustment plate
152	A-1031M/115	4	Pinion	170	B-1031M/24	2	Thickening table roller bracket (Lt. H&J)
153	A-1031M/116	4	Adjusting screw for pinion	171		1	1" dia plastic ball M10
154		8	M6 x 12 long countersunk head screw	172	A-1031M/103	1	Understable roller adjustment handle
155	A-1031/101	4	Back trapping plate	173		1	M10 locknut
156	B-1031M/100	2	Adjusting rack	174		1	M10 x 12 long socket head grub screw
157	D-1031M/8	1	Thickening table	175	B-1031M/99	1	Understable roller adjustment cam
158	A-1031/36	4	Thickening table strip	176	A-1031/118	1	Understable roller adjustment spring
159	B-1031M/24	2	Thickening table roller bracket (Rt. H&J)	177		1	5/16" dia steel ball
160	B-1031/68	2	Outer table roller	178	A-1031/106	2	Stop screw for sets
161		8	M10 x 25 long chrome head screw	179		4	6 washer
162		8	3/4" x 1/8" x 1/8" long chrome head screw	180		6	M6 x 12 long hexagon head bolt
163	A-1031/38	4	Understable roller bearing block	181	A-1031M/104	1	Cam outer bearing plate
164	K06-01-172	4	220-2RS bearing	182		2	M6 nut
165	B-1031/37	2	Understable roller	183	C-1031/98	1	Understable adjusting bracket
166		1	M6 x 12 long socket head grub screw	184	A-1031M/105	1	Cam inner bearing plate
167	A-1031/43	1	Thickening table rise and fall pointer	185		1	1" external clasp
168		2	3 dia x 12 long fluted rivet				



CUTTERBLOCK ASS'Y

Ref. No.	Part No.	No. Off	Description	Ref. No.	Part No.	No. Off	Description
191		4	M10 x 20 long socket head grub screw	220	No. 155	1	5/16" wide x 1" woodruff key
192	A-1031M/61	2	Feed roller sprocket 25 teeth	221	C-1031M/72A	1	Cutterblock
193		4	M10 x 20 long hexagon head bolt	222		10	M12 x 30 long dog pointed socket head grub screw
194	A-1031M/23	2	Tie bar block	223		2	2 dia x 12 long fluted rivet
195	A-1031/30	2	Side frame tie bar	224	A-S-41	2	Cutterblock spring
196	B-1031M/28B	2	Feed roller bearing block	225	A-1031M/144	1	Stud for rebate side guard
197		8	7/8" bore x 1 1/8" O/D x 4" long oilite bush	226	B-1031M/14	1	Rebate side bearing housing
198	No. 150	2	5/8" wide x 1" woodruff key	227	5000-206	2	Truarc internal circlip
199	C-1031/189	1	Feed roller (plain)	228	K06-01-207	1	6205-2RS bearing rebate side
200		4	3" long 1/2" sq. black "Tesamol" type 770	229		1	6 across flats, long arm hexagon wrench
201	B-1031M/28A	2	Feed roller bearing block	230	B-S-55	2	Cutterblock knife (12 3/4" long)
202		4	6 dia x 25 long fluted dowel	231	D-1810/110	2	Strip for cutterblock
203	A1031M/142	2	Stud for feed roller block	232		2	M6 x 12 long cheese head screw
204	A-1031/39	4	Feed roller stop	233	A-1031/50	2	Pressure bar spring
205	A-1031/49	4	Feed roller spring	234	A-1031/32	1	Baffle plate
206		8	8 washer	235	C-1031/27	1	Feed roller (fluted)
207		8	M8 aerotight nut	236		4	M10 x 10 long socket head grub screw
208		6	M6 x 12 long round head screw	238	A-1031/164	2	Knife setting device blocks
209		6	6 spring washer	239	A-1031M/165	1	Knife setting device tie bar
210	A-1031/33	1	Scraper plate	240	A-1031/76	1	Stop bar
211	C-1031M/29	2	Pressure bar	241		2	M6 x 12 long countersunk head screw
212	A-1031/50	2	Pressure bar spring	242		2	M10 x 12 long socket head grub screw
213		6	M10 x 25 long hexagon head bolt	243	B-1031M/74	2	Kick back finger tie bar block
214		6	10 spring washer	244		2	M6 x 10 long socket head grub screw
215	A-1032/22	2	Cutterblock washer	245	B-1031/75	1	Kick back finger tie bar
216	B-1031/81	1	Cutterblock pulley	246	B-1031/75	2	Thick tie bar collar
217	K06-01-214	1	6206-2RS bearing driveside	247	A-1031/136	24	Kick back finger
218	B-1031M/13	1	Drive side bearing housing	248	A-1031/155	1	C/block bearing spacer
219	A-1031M/143	2	Stud for drive side guard		A-1069/184	2	Knife setting device screws